

1 1. A method for implementing a processor-based
2 system comprising:
3 storing system boot instructions on a
4 programmable, non-volatile memory coupled to a bus which is
5 configured after the boot sequence; and
6 accessing instructions in the memory in the
7 process of booting the processor-based system.

1 2. The method of claim 1 wherein storing boot
2 instructions includes storing said instructions on a memory
3 coupled to the peripheral component interconnect bus.

1 3. The method of claim 1 further including storing
2 an operating system on said non-volatile memory.

1 4. The method of claim 1 wherein accessing
2 instructions includes using a general purpose output pin on
3 a chipset to supply signals to an A20GATE pin to access the
4 memory during the process of booting the processor-based
5 system.

1 5. The method of claim 1 wherein storing system boot
2 instructions includes storing the basic input/output system
3 on said memory.

1 6. The method of claim 1 further including modifying
2 the address of the boot device.

1 7. The method of claim 6 further including causing a
2 legacy bus controller to ignore said address.

1 8. The method of claim 8 further including causing a
2 controller associated with said memory to respond to said
3 address.

1 9. A processor-based system comprising:
2 a processor;
3 a volatile memory coupled to said processor;
4 a peripheral component interconnect bus coupled
5 to said processor; and
6 a non-volatile memory coupled to said bus storing
7 system boot instructions.

1 10. The system of claim 9 wherein said system boot
2 instructions include the basic input/output system for said
3 processor-based system.

1 11. The system of claim 10 wherein said non-volatile
2 memory is a FLASH memory.

1 12. The system of claim 9 including a chipset coupled
2 to said bus and having a general purpose output pin and an
3 A20GATE pin, the general purpose output pin coupled to said
4 A20GATE pin.

1 13. The system of claim 12 wherein said A20GATE pin
2 is adapted to create a unique boot address for said non-
3 volatile memory.

1 14. A memory adapted to be coupled to a peripheral
2 component interconnect bus comprising:
3 a non-volatile, re-programmable semiconductor
4 memory array storing a basic input/output system; and
5 a peripheral component interconnect bus
6 controller coupled to said memory array.

1 15. The memory of claim 14 wherein said memory is a
2 FLASH memory.

1 16. The memory of claim 13 wherein said controller is
2 configured to respond as the boot device.

1 17. The memory of claim 13 wherein said controller is
2 not configured to respond as the boot device.

1 18. The memory of claim 13 wherein said array stores
2 an operating system.

1 19. The memory of claim 13 wherein said memory is
2 adapted to be re-programmed without user intervention.

1 20. The memory of claim 13 including a controller
2 adapted to respond as the boot device.